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U.S. House Committee on Homeland Security
Subcommittee on Prevention of Nuclear and Biological Attack**

“Enlisting Foreign Cooperation in U.S. Efforts to Prevent Nuclear Smuggling”

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Thank you Mr. Chairman, Ranking Member Langevin and other distinguished members of the Subcommittee. I am pleased to have this opportunity to highlight the substantial progress we have made in expanding the Megaports Initiative to high priority countries. I would also like to take a few minutes to describe some of the hurdles we must overcome to accelerate the radiation scanning of overseas container traffic. The topic of today’s hearing is a priority for our country and indeed for the world. The risk of nuclear terrorism is not limited to the United States and the success of our efforts to detect and deter nuclear smuggling is very much dependent on whether our foreign partners share a common recognition of the threat and a willingness to combat it. For that reason, we have expended a significant amount of efforts on international outreach to garner support for this critical initiative.

I am the Assistant Deputy Administrator for the National Nuclear Security Administration’s (NNSA) Office of International Material Protection and Cooperation (IMPC). My office is one of six program offices within the Office of Defense Nuclear Nonproliferation (DNN). The collective mission of DNN is to detect, prevent, and reverse the proliferation of weapons of mass destruction. Our programs are structured in support of multiple layers of defense against nuclear terrorism and state-sponsored nuclear proliferation. This multi-layered approach is intended to identify and address potential vulnerabilities within the international nonproliferation regime, to limit terrorists’ access to deadly weapons and material, and to prevent the illicit trafficking of dangerous materials that could be used in a nuclear or radiological weapon. The Megaports Initiative plays a critical role within the IMPC program.

Megaports Mission

We established the Megaports program in response to the concern that terrorists and states of concern could use the global maritime shipping lanes to smuggle nuclear or other radiological material. The Megaports mission is focused on preventing the trafficking of nuclear material or weapons to our borders as well as interdicting nuclear smuggling attempts within regions of concern. In support of these objectives, we work

with host nations to install radiation detection equipment at foreign ports to provide the capability to scan containerized cargo for the potential presence of radiation.

We have been installing radiation monitors overseas for more than a decade at land borders, seaports, airports, and nuclear facilities, mostly in the Former Soviet Union. Building on the 20 seaports we equipped in Russia under the Second Line of Defense program, we expanded to large seaports worldwide in 2003 (i.e., Megaports). We began with a focus on the first 20 Container Security Initiative (CSI) ports, whose selection was based on sheer volume to the United States. We later added a threat component to our prioritization strategy following consultations with the Intelligence Community, private-sector threat specialists, and our national labs. This led to our current list of approximately 70 ports of interest under Megaports.

I am pleased to report that we have steadily increased the number of countries participating in the Megaports program over the last three years. We are currently working in 14 ports, are close to signing agreements with about 10 more countries, and are in various stages of discussions with another 10. We have purchased equipment to outfit several more ports and have contracts in place to support design, engineering and construction. Once all 70 ports are equipped, we conservatively estimate that we will be scanning at least 40 percent of global traffic and over 50 percent of U.S.-bound containers.

Role in NNSA's Nonproliferation Strategy

The Megaports Initiative is a key component of NNSA's larger strategy to prevent the diversion of nuclear weapons and material. Since the fall of the Soviet Union in the early 1990s, we have focused on securing nuclear materials and weapons at well over one hundred research, storage and manufacturing facilities in Russia and other states of the Former Soviet Union. Backed by strong Congressional support, we are on track to complete these security upgrades by the end of 2008. By addressing the vulnerabilities at nuclear facilities, NNSA's global nonproliferation programs seek and capitalize on the widely accepted notion that working close to the source of a threat is the most effective way to reduce risks to the United States.

Our Second Line of Defense Program, which enhances security on foreign borders by providing a technical tool to interdict illicit trafficking in nuclear and radiological materials, is a natural complement to these activities. The deployment of radiation detection systems at high-risk land border crossings, airports and seaports provide a backstop to the nuclear site security systems, increasing the likelihood that nuclear materials stolen from protected facilities will be detected and interdicted.

The Second Line of Defense (SLD) program was also designed to confront the threat of nuclear terrorism as close to the source of the threat as possible. Given the vast amount of nuclear material spread across Russia's nuclear complex, our cooperative work with the Federal Customs Service of the Russian Federation to secure Russian points of entry and exit remains our highest priority. However, we have expanded SLD deployments to

countries of the Former Soviet Union and Eastern Europe and established the Megaports program in recognition that significant quantities of nuclear materials are generated and stored outside of Russia and that redundant layers of detection are necessary to address such a grave threat.

Agreements with Foreign Partners

The completion of agreements with our foreign partners is key to our ability to implement the Megaports Initiative. The long-term benefit of the program will largely hinge upon the strength of our international cooperation, and these agreements lay the foundation for this cooperation. These agreements represent a political commitment by both governments and document a mutual understanding of overall roles and responsibilities. At times it can be difficult to put these agreements in place, despite the best efforts of the U.S. Ambassadors and high-level focus within the Administration.

The agreements create a framework for NNSA's provision of the necessary radiation detection equipment as well as the follow-on training and maintenance assistance to support the Megaports mission. The terms of our agreements make clear that host government officials are responsible for the operation of the equipment and the response to all alarms. In addition to these commitments, they also contain important clauses that protect NNSA's interests such as the understanding that NNSA will not pay foreign taxes on the assistance it provides, a position that is consistent with Congressional guidance on this topic. Most importantly, the agreements document the host government's commitment to notify the U.S. Government of all detections or seizures of illicit nuclear and other radioactive materials made as a result of the use of NNSA supplied equipment.

In a number of instances, concluding Megaports agreements has required several months and sometimes years of active engagement. While there are obvious mutual security benefits of implementing Megaports, there are also inherent resource commitments that must be met by the host government to successfully implement the Megaports program. The effectiveness of the program depends on the host government's willingness to devote the resources necessary to operate the detection systems and quickly resolve alarms. Only the host nation has the authority to adjudicate suspicious or suspect containers. In many cases, the host government must hire or realign staff to continuously man the Central Alarm Station and to conduct secondary inspections for high-risk containers. Finally, the data sharing provisions of the agreements touch on sensitive national security and sovereignty matters. In light of these commitments, a decision to join the Megaports program usually requires interagency approval at the most senior levels of the host government and this can take a significant period of time. All prospective partners understandably seek to ensure that Megaports cooperation is within their national interest. In many cases, our negotiation process is often influenced by broader bilateral issues that a host country may choose to link to progress on Megaports discussions. As with all foreign negotiations, our effectiveness is dependent on the degree of leverage at our disposal. We are continuously seeking additional ways to convince host countries to embrace the program. For example, we highlight the new World Customs Organization standards requiring radiation detection during our efforts to elicit foreign interest in the

program. The growing number of agreements we have signed has also created added incentive for other countries to join the Megaports program, as they observe our progress in their region and witness the benefits of our cooperation. We also attempt to capitalize on Presidential and other Administration officials' visits to bring difficult negotiations to conclusion. By way of example, one country in particular refused to conclude negotiations for over two years, but then quickly agreed to complete an agreement in a matter of four days due to a Presidential visit. Finally, the additional Congressional focus on international port security is bound to help in this regard as well.

While we establish formal agreements with foreign governments, the cooperation of terminal operators in foreign ports is always an important factor in the successful implementation of the Megaports program. To that end, we have engaged the terminal operators early on in the discussions with our foreign partners to ensure their buy-in and to determine the optimal placement of the detection systems. Additionally, we often benefit from the willingness of these terminal operators to exert pressure on the host government to implement the program. We have ongoing exchanges with all of the major private port terminal operators by virtue of the negotiations and implementation activities we are currently supporting. In fact, we have already agreed upon an arrangement with one of the largest port terminal operators to partner in ports where they have an interest in funding the installation of radiation detection systems. While drawing the private sector into our outreach discussions is an important part of the Megaports strategy, it is essential to establish agreements with host governments, who perform the vital tasks of resolving alarms and detaining suspect containers. In short, we must continue to focus our efforts on persuading foreign customs services to adopt the program along with the private sector, since sovereign countries will not accept private sector inspections of cargo in their ports.

Finally, while accelerating the completion of agreements is important, it will not in and of itself solve one of the more complex issues in overseas scanning -- capturing transshipped cargo. Working directly with terminal operators is imperative to address this issue. Although scanning containers as they enter or exit a gate is relatively straightforward for terminal operators, scanning transshipped cargo can be a complex challenge. Containers are unloaded from one ship, placed on the dock for a varying period of time, and placed on another ship, without ever transiting a natural choke point where it would be convenient to set up radiation portal monitors. Operators must disrupt normal operations to drive transshipped containers to a location for scanning. Since timing is so critical to port efficiency and competitiveness, we recognize that a country's decision to join the Megaports program hinges on the perceived impact to port operations. We continue to work on strategies with host governments and terminal operators to scan transshipped cargo with minimal impact on the terminal operations.

Interagency Relationships

As with all of our international programs, we recognize that closely coordinating Megaports activities with those of related programs within other departments and agencies reinforces our objectives and is important to our success. The Megaports Initiative is an integral element of the U.S. maritime security strategy, complementing the

Department of Homeland Security's (DHS) Container Security Initiative (CSI), Coast Guard's International Port Security Program (IPSP) and the Department of State's Proliferation Security Initiative (PSI).

Partnership with CSI

We have long recognized that Megaports and CSI form synergistic layers in the larger, multi-tiered defense against nuclear terrorism. We have accordingly built and maintain a strong partnership with DHS's Bureau of Customs and Border Protection to closely align the implementation of the two programs. In support of this partnership, we are working to equip each CSI port with a radiation detection capability. The extraordinary collaboration and coordination between CSI and the Megaports Initiative is evident in the over 20 joint outreach missions, port assessments, briefings, and high level meetings we have undertaken and the joint agreements we have signed with foreign partners. We have already signed two joint Megaports-CSI agreements with Oman and Honduras, anticipate signing several more this year and continue to seek additional opportunities to jointly implement both programs. Signing such joint agreements is arguably the best way to leverage our interagency partnership and accelerate Megaports.

Given the critical role that technology plays in support of our common goal, we have also partnered with CSI to evaluate innovative scanning configurations, such as the Integrated Container Inspection System (ICIS) deployed in the port of Hong Kong. Adding an imaging capability to the detection system should help reduce secondary inspections and may play a role in analyzing the risk of non-alarmed containers. We are further investigating opportunities with CSI to partner with private sector port terminal operators. Many private sector port terminal operators are keenly aware that in the era of globalization, a nuclear or radiological incident at one port could adversely impact the entire global trading system. We welcome the private sector's promotion of stronger port security measures and believe that an appropriate partnership with the private sector could accelerate the number of ports equipped to detect nuclear smuggling.

We will continue to explore additional avenues to leverage our partnership with CSI to accelerate the implementation and augment the effectiveness of Megaports. I strongly believe that the best way to expand overseas scanning of cargo containers is to continue to build upon the strong ties between our two agencies.

DNDO

Another important interagency relationship is that with the Domestic Nuclear Defense Office (DNDO). Because the SLD program forms a critical layer in the global nuclear detection architecture, NNSA and DNDO's cooperation in the campaign to reduce the threat of nuclear terrorism is crucial. Given our role as the primary agency responsible for international deployment of radiation detection equipment, we routinely exchange information with DNDO to ensure that our efforts fit cohesively together in support of a comprehensive global architecture. In support of DNDO's mission, we are jointly

exploring the means to share the overseas alarm data from SLD deployments directly with DNDO.

We are working collaboratively to establish operational requirements for future detection systems. We support DNDO's operational testing and evaluation program, as improvements in nuclear detection equipment will benefit our international deployment efforts. Currently, we are exploring the possibility of joining DNDO's procurement vehicles to leverage our combined purchasing power to reduce overall costs to the taxpayers and accelerate our deployments.

We look forward to further strengthening this relationship as we move toward implementation of the DHS vision to more fully integrate radiation detection systems world-wide to better evaluate potential threats to the United States and to the global transportation system.

Department of State

We could not be successful in the development and implementation of this international effort without a close relationship with the State Department. On that front, we work closely with the Office of Export Control Cooperation and the Office of Weapons of Mass Destruction and Terrorism to coordinate with one another in carrying out our complementary missions. The Office of Export Control Cooperation chairs a bi-monthly Interagency Working Group to coordinate efforts of agencies and programs involved in the area of export control and related border security and holds periodic meetings to discuss strategic and country-specific visions and priorities, as well as to discuss the planned scope of work in specific countries. Under the Second Line of Defense program, we periodically execute projects on behalf of the State Department to provide radiation detection systems. This helps to ensure consistent deployment of systems and allows us to provide more efficiently for the maintenance of the equipment.

The State Department also leads the Nuclear Trafficking Response Group, an interagency group that is responsible for ensuring rapid dissemination of information pertaining to significant trafficking incidents and for coordinating recommendations on diplomatic and other responses to such incidents. In doing so, the NTRG seeks to advance USG interests in (1) securing smuggled material and the facilities from which they were diverted, (2) encouraging the prosecution of those involved, and (3) developing information on related security threats, e.g. connections between smugglers and terrorists.

Detection Equipment

The radiation detection equipment currently being deployed by NNSA under the SLD program is proven technology that was developed to ensure nuclear material security at DOE weapons sites. NNSA currently provides host country partners with an integrated suite of equipment, which includes radiation portal monitors that utilize plastic scintillators and Helium-3 tube technology to detect highly enriched uranium, plutonium, and other radioactive isotopes. The comprehensive system also includes computers and

cameras and, as appropriate, Optical Character Recognition (OCR) equipment to collect and transmit alarm information for analysis by host country Customs officials. Finally, handheld equipment is supplied that is used to conduct secondary inspections to isolate and identify radioactive sources within containers, vehicles, or on persons. The equipment has been evaluated by our technical experts at the National Laboratories as well as at the Domestic Nuclear Defense Office's test facility in Nevada and has proven to be operationally effective and robust in harsh, and often remote, international environments.

That being said, we recognize that there are limitations in its capabilities and that there is a need for next generation equipment that will identify both highly enriched uranium and plutonium with a high degree of efficiency and will support the prompt adjudication of innocent alarms so as not to impede commerce flow. We are closely tracking the efforts within the NNSA and DNDO research and development programs so that we may capitalize on advancements in detection capabilities. For example, we are working with DNDO to purchase a number of Advanced Spectroscopic Portals (ASP) as soon as the equipment has been sufficiently evaluated and is ready for deployment. The ASP is expected to enhance the ability of Customs officials to resolve alarms by providing a more sophisticated capability to quickly identify the radioactive isotopes of concern. NNSA plans to use the ASPs at Megaports locations as secondary inspection tools and, as necessary, for primary inspection at locations that have larger traffic volumes.

We have also initiated efforts to modify existing technologies to address scanning challenges in transshipment ports. For example, in the Port of Freeport in The Bahamas, we expect to be able to scan more than 90 percent of the transshipped cargo using a straddle carrier vehicle outfitted with radiation detection equipment, including spectroscopic detection capabilities. This modified straddler can travel through rows of shipping containers in the stacks, a reverse of our normal deployment strategy that is based on the permanent placement of the detection equipment and transit of the container through the portal. While this approach is not applicable at all ports, for those terminals that stack in a compatible configuration, this type of deployment provides an opportunity to maximize scanning of transshipped containers. We are also working closely with the private sector on other promising mobile configurations to address transshipment at ports with more traditional stacking configurations.

Finally, we continue to look to the future and eagerly await the development of even more revolutionary detection enhancements, such as the Cargo Advanced Automated Radiography System (CAARS) currently under development within DNDO. This advanced radiography system will provide better imaging in drive through capacities and is expected to improve our ability to identify shielded highly enriched uranium in containerized cargo.

Conclusion

In closing, I would like to restate that the Megaports Initiative under the NNSA/SLD Program is dedicated to preventing the smuggling of nuclear and radiological material at

international seaports. We accomplish this goal by working closely with foreign governments and by maintaining strong relationships with other agencies and departments in the U.S. Government. We firmly believe that the unique capabilities of each department and agency are being leveraged to accomplish our common objective of preventing nuclear material from reaching the shores of the United States.